



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,549	04/14/2004	Yoichi Nakano	S003-5262	8840
40627	7590	04/03/2006	EXAMINER	
ADAMS & WILKS 17 BATTERY PLACE SUITE 1231 NEW YORK, NY 10004			SUTHAR, RISHI S	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,549

Applicant(s)

NAKANO ET AL.

Examiner

Rishi Suthar

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 7-9, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Responsive to amendment filed on 3/7/2006.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 6 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugiura (US 4,339,190).

Sugiura teaches in Figs. 1-3 a sector drive assembly comprising a sector unit (1) comprising a base plate (4) having an aperture (4d) with sectors (7); a sector drive unit (2) comprising a support plate (10, 25), an electromagnetic actuator (42) mounted to the support plate, an intermediate member (23) opposed to the support plate for retaining the actuator in a predetermined position (by 23'), and a drive force transmitting mechanism (2 in Fig. 1), removably mounted as a unit to the base plate (at 3); sector arms (8a, 8b) connected to sectors (7) to open and close the aperture; the drive force transmitting mechanism has an angular motion converting mechanism to convert an angular movement of the actuator into angular movement of the sectors; and the intermediate member is detachably attached to the support plate (at 31).

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada (US 5,749,014).

Shimada teaches in Fig. 8 a sector drive assembly comprising a sector unit (38) comprising a base plate having an aperture (see Fig. 8) with sectors (39); a sector drive unit (see Fig. 8) comprising a support plate (44), an electromagnetic actuator (41-43) mounted to the support plate, an intermediate member (not numbered; attaches to top of 41-43 by screws) opposed to the support plate for retaining the actuator in a predetermined position (shaft in intermediate member holds 41 in place), and a drive force transmitting mechanism (see Fig. 8), removably mounted as a unit to the base plate (by unnumbered screws in Fig. 8); the sector unit further comprises a sector urging spring for urging the sectors in one direction (15).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura (US 4,339,190) in view of Tanikawa et al (US 6,485,200).

Sugiura teaches the invention as claimed above, except a sector position detecting unit for detecting a position of the sectors based on a position of the drive force transmitting mechanism. Tanikawa et al. discloses in Fig. 1 a shutter which has a sector position detecting unit (15) for detecting a position of the sectors based on a position of the drive force transmitting mechanism. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a switch as taught by Tanikawa et al. in the invention of Sugiura in order to obtain a proper timing for an illumination a flash when the aperture is in the open position (col. 4, lines 55-59).

Regarding claim 4, the combination of Sugiura and Tanikawa et al. teach the sector position detecting unit comprises a conductive spring element that undergoes movement with the drive force transmitting mechanism to come into and out of contact with a conductive member (see Fig. 1 of Tanikawa et al.).

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura (US 4,339,190) in view of Takahashi (U.S. Patent No. 6,536,962).

Sugiura teaches the invention as claimed above in claim 6, but does not expressly disclose a drive gear provided on a drive shaft of the actuator and a sector drive gear driven by the driving gear. Takahashi teaches a sector drive unit for a camera where a drive force transmitting mechanism comprises a drive gear on a drive shaft of the electromagnetic actuator and a sector drive gear driven by the driving gear for

driving the one or more sectors. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a drive gear on the drive shaft and a corresponding sector drive gear since it is well known to use gears on shafts of motors to promote a better and slip free engagement of the motor and the member to be rotated by the motor.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura (US 4,339,190) in view of 5,973,399).

Sugiura et al. teaches the invention as claimed above in claim 21, but does not teach the support plate has latch devices engagable with the intermediate member to detachably connect the intermediate member to the support plate. Stark et al. discloses a cover for an electronic apparatus where the cover is attached to another member by screws or latches (clips). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use latches instead of screws in the invention of Sugiura to attach the intermediate member to the support plate since both latches and screws are typically used to attain the desirable feature of easy detachment and installation (col. 1, lines 23-25).

Allowable Subject Matter

8. Claims 7-9, 23 and 24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 7-9, the prior art fails to teach pulse motor in combination with the elements in claim 1 and 6. Regarding claims 23 and 24, the prior art fails to teach that the intermediate member holds both the actuator and the drive force transmitting member and that the intermediate member has mounting portions removably mounted to the base plate.

Response to Arguments

10. Applicant's arguments with respect to all pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rishi Suthar whose telephone number is 571-272-8456. The examiner can normally be reached on M-Th 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rishi Suthar
Examiner
Art Unit 2851

RS

William Perkey
Primary Examiner